Response to Editor and Referees

"Microcredit from Delaying Bill Payments"

William Violette

February 11, 2026

Dear Ryan,

Thank you for the opportunity to revise and resubmit this paper and for the thoughtful suggestions. Please find responses below, and please let me know if you have any follow-up questions.

Thanks again,

Will

Editor Comments

- *"Please do your best to complete the welfare comparison by modeling prepaid smoothing strategies."*
    - Referee 1's observation that households may use prepaid smoothing to arbitrage increasing block prices is addressed by a counterfactual with a single marginal price (Section 6.2 and Appendix 8.6).[1] Referee 1's other observation that prepaying may reduce disconnection/warning hassle costs is addressed by clarifying that prepaid metering technologies eliminate the need for payemnt enforcement because they automatically stop water flow when credits run out. Otherwise, the model allows households to accumulate precautionary savings through the standard asset.
- *"Consider broadening the policy space beyond "current vs prepaid" to incorporate features such as late fees (or the equivalent early-payment discount) instead of interest-free debt via the utility bill and/or a design in which a separate entity provides the loan while the utility focuses on water provision."*
    - Additional counterfactuals of both late fees and interest on unpaid bills are included in Section 6.4. External liquidity is considered by calculating the reduction in the borrowing market rate necessary to leave households indifferent to pre-paid meters (Section 6.2), which reflects a setting where the company only provides water while an external lender provides discounted loans.
- *"Provide more institutional context and discussion of external validity (e.g., How common are shutoffs elsewhere? Are utilities typically allowed to charge interest on arrears? What is distinctive about Manila and what may generalize?)."*

[1] Constant marginal prices are likely realistic considering that increasing block tariffs are difficult to implement in practice with prepaid meters.

Response here.

Referee 1

- *"Where price follows an inclining block tariff, as it does in this paper's setting in Manila, additional welfare improvements for households are accessible through prepaid metering, but not postpaid metering. Prepaid metered households are able to minimise their total expenditure on the utility over the period they are connected by purchasing their average monthly consumption... This strategy minimises the total number of litres bought at the higher marginal price blocks of the inclining block schedule over the period that the household is connected."*
    - Very thoughtful comment; I included a robustness table with linear prices and found similar results (See discussion in Section 6.2 and Appendix 8.6). My sense from the literature is that tariffs become flatter (if not single marginal prices) when prepaid meters are introduced because of this concern as well as the feasibility of tracking everyone's monthly usage on prepaid meters.
- *"Just by purchasing ahead, households reduce the risk of receiving demand letters and disconnection notices, as well as reducing the risk of being disconnected if they plan to stay in the utility's service area. Demand letters and disconnection notices reduce utility and so do actual disconnections in the author's model... Avoiding these improves welfare, all else equal."*
    - I think clarifying the prepaid metering technology itself may help address this concern. Section 6.2 now indicates that with prepaid meters, the utility no longer needs to warn/disconnect households because the flow of services stops automatically as soon as the meter reaches zero.

Referee 2

1.1. Considering all relevant effects.

- *"I'm not sure whether the paper considers all relevant effects when making the policy conclusions. In this setting, the water utility company has two roles: providing interest-free loans and providing water. In my opinion, it is not a typical IO problem."*

Response here.

- *"Access to clean water is a public health issue in developing countries. If the water company takes on dual roles, providing loans and water, it may face difficulties making the necessary*

investments to supply clean water to the entire population…the paper currently does not account for the water company's investment decisions. In my opinion, it is likely that the current revenue is too low to support optimal investment."

Response here.

- *"If the government wants to provide interest-free loans, why do it via the water utility company? Why not create another entity that provides loans or build an institutional framework that allows the market to do so? In my opinion, for the counterfactual policy analysis, this implies that we shouldn't consider only an epsilon improvement, but also consider what is optimal."*

Response here.

1.2. Household discount rate.

- *"The parameter for the household discount rate is assumed to be the same as found in the literature for the US. However, since the institutional details and behavior in Manila differ from those in the US, I believe it is important to use parameters that are estimated for developing countries. It seems like a very strong assumption to assume that the annual discount rate in Manila is 6%. This is reasonable in the US, where the annual interest rate could be considered 6%. But in Manila, as the paper states, the annual interest rate for most households is about 200% (9.5% monthly rate). Perhaps it would be useful to look at discount rate estimates in the Philippines (Ashraf, Karlan, and Yin, 2006 QJE)."*
    - Great suggestion; see updated Table 14 which cites Ashraf, Karlan, and Yin, 2006 QJE to justify a higher discount rate and uses a monthly discount rate of 2.4% implied by Matousek et al. [2022] in their meta-analysis of the experimental literature. Overall, I find that high discount rates magnify welfare effects as discussed in Section 6.1.

2.1. More details on the institution and comparison with other countries.

- *"The paper studies a strange pattern of behavior: a large share of the population regularly allows its water to be turned off. To better understand what is going on, it would be helpful to have some background information for comparison with other countries. In other countries, how common is it for utilities to be turned off? How common is it for utility companies to be prohibited from charging interest on late payments?"*

Response here.

2.2. Additional counterfactuals.

- *"It would be interesting to add another counterfactual: the utility company charging interest on late payments, as is done in many other countries. If it is politically costly to impose a late fee, one could frame it as an early payment discount instead."*

- Helpful idea; Section 6.4 includes both fixed late fees and interest on unpaid bills as additional counterfactuals.

2.3. Intra-household bargaining.

- *"What is the role of intra-household bargaining? In development economics, there is substantial literature on household bargaining and the inefficiencies that result from it. Who makes the decisions and pays the bills, and who bears most of the cost when the water is disconnected and the household has to obtain water from alternative sources? Is the person who pays the regular bill the same as the one who pays the one-time reconnection fee?"*

Response here.

2.4. Summary statistics.

- *"It would be informative if Table 1 presented, in addition to the mean, other statistics, at least the median."*
  - Please see updated Table 1 including the median as well.